For Commission Staff Use Only:
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FINDING AND RECOMMENDATION(S)

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Finding: (*i.e., Conclusions reached after investigation and/or evaluation of facts*)

One of the limiting factors for adequate, timely and cost effective forest treatment in the Lake Tahoe Basin is the **lack of adequate data on the impacts of mechanized and other types of forest thinning on water quality and soil health**. Regulatory agencies apply a range of restrictions because of limited local data relative to those practices. Implementation agencies, landowners and other entities implement a broad range of practices without understanding the full environmental implications of doing so. This situation has, in many cases led to stalemates, stalled projects and strained relationships when in fact, most of the stakeholders involved in forest health and fuels reduction practices are aiming for similar goals.

Background and Supporting Evidence: *(A short statement justifying the Finding and describing desired outcome(s); usually no more than half a page.)*

In 1999, a group of individuals interested in improving erosion control practices in ski resorts began a process that has let to the California Alpine Resort Environmental Cooperative, which has produced the Sediment Source Control Handbook (draft, final document in 2008) http://www.swrcb.ca.gov/rwqcb6/cerec.html This effort is based on finding common solutions through a collaborative process, using a science-based approach to do so, following an adaptive management process and using a broad range of field plots and direct measurements to test specific hypotheses.

A great deal of discussion has taken place about which forest clearing/fire reduction strategies are the most effective and what relative effect each has on water quality. During preparation of the Tahoe TMDL Document for Forest Uplands (Drake, Grismer and Hogan, in review), it became apparent that very little actual research has been done on forest thinning practices currently in use or suggested for the Lake Tahoe region (see http://calag.ucop.edu/0602AMj/pdfs/5_Mastication.pdf). Parallel to these discussions, a great deal of concern exists regarding regulatory agency standards for accepting some of those strategies, especially regarding heavy equipment. This concern centers around the impacts that heavy equipment may have on soil compaction and thus water quality. Land managers and regulatory agency personnel must begin to test, measure and develop a better understanding of a variety of forest thinning tools.

Recommendation(s) *(Based upon an analysis of the Finding, the following recommendation(s) should be made to the Governors):*

Land managers and regulatory personnel must develop a program based on the California Alpine Resort Environmental Cooperative program. The following process was used to develop the Sediment Source Control Handbook and shall be put forward as a model for the development of a Forestry/Fire Reduction Guiding Principles Program:

1: Development of a technical, ad hoc steering committee

This group will be made up of agency personnel (Lahontan, TRPA, Fire Districts, Fire Safe Council, CalFire, science advisors (M Grismer, UCD) land managers and others.

2: Development of near term and longer term goals and focus

A narrow focus will be used to start process, such as study of mastication and other equipment on soil compaction, erosion, runoff and if funding allows, some study of soil parameters of the Angora Fire in order to bracket fire treatment effects. The Workshop on Vegetation Management in Sensitive Areas of the Lake Tahoe Basin may serve as a platform. As the program develops, a broad range of practices will be tested.

3: Identification of test and demonstration sites

Some potential treatment demonstration sites have already been identified. Active and planned sites would be used. All sites can be designed to extract comparative data.

Other sites have already been completed and are ideal for study, such as Celio Ranch SEZ work (Lake Valley Fire District), Blackwood Forest Clearing project (USFS), Northstar Urban Interface Treatment Areas (Northstar FPD), Homewood Fuels Clearing program, etc.

4: Development of adaptive management process similar to the Sediment Source Control Handbook.

This process will be used as a common ground, working tool between land managers and agency personnel and will be developed by those partners.

5: Development of a cost-effective monitoring program to measure practices outlined in step 3, above.

6: Information sharing and exchange program between practitioners.

7: A 'toolbox' of practices which have been shown to be effective and of a known and acceptable level of environmental impact, specifically on erosion potential.

This toolbox is developed from field tested practices and is added to over time as new tests are conducted.

The proposed Forestry/Fire Reduction Guiding Principles Program shall be based on the following precepts:

- A process based on participation by agencies and land managers and focused on finding scientifically tested common answers to management issues (such as "how does tracked equipment effect erosion during and after forest treatment")

will result in rapid growth of knowledge and practices for forest thinning with minimal environmental impacts.

- Additional knowledge is needed to made useful management decisions relative to erosion control and forestry practices.
- Regulatory restrictions are based on lack of adequate data relative to a range of practices and not on resistance to change
- A collaborative, transparent and accountable processes between agencies and land managers leads to positive, robust and practical outcomes.
- A process to plan, implement and monitor projects will allow these information and communication gaps to be filled over time (adaptive management)
- The use of test and demonstration projects offers a format to better understand practices and to develop common understanding between and within agencies and land managers. Further, these plots, when monitored appropriately, are the foundation of a scientific understanding of the environmental benefits and costs of specific practices.

Impacts of Implementation: *(The implementation of any Recommendation is likely to have specific impacts. Consider potential consequences related to each of the following areas)*:

Analysis of impacts on the following factors is REQUIRED (Best Estimate):

- ☐ Cost - $100,000 for years 1 and 2 and $500,000 for years 3, 4, and 5. Funding necessary to manage the process.
- ☐ Funding source – mix of federal, state and private dollars.
- ☐ Staffing – Federal, state and local land managers and regulators.
- ☐ Existing regulations and/or laws

Analysis of impacts on the following factors is OPTIONAL:

- ☐ Operational
- ☐ Social
- ☐ Political
- ☐ Policy
- ☐ Health and Safety
- ☐ Environmental
- ☐ Interagency